



WCEX-RPTS

Roadside unit performance test system

The WCEX-RPTS is a specialized testing system designed to measure the basic performance of Roadside Units (RSUs) deployed on roadways. It ensures compliance with the basic performance requirements set as national standards for Intelligent Transportation Systems (ITS). WCEX-RPTS is an essential solution for verifying the adherence of RSUs to these national standards and has been successfully delivered as the core equipment for basic performance testing to the Korea Expressway Corporation (Kr-EX).

Features

- * A test system for measuring the basic performance of RSUs, including installation standards on roads
- * Tests for compliance with the Ministry of Land, Infrastructure, and Transport's ITS basic performance requirements
- * RSU basic performance testing equipment delivered to Korea Expressway Corporation (Kr-EX)

Functions

- * Performs basic, completion, and periodic evaluations of Roadside Units (RSUs)
- * Equipped with a 4-channel V2X receiver and high-precision GNSS
- * Supports testing of multiple RSUs within a driving section
- * Generates test performance and results, and manages logs through a GUI-based interface



RSU #2 on Upbound Lane



RSU #1 on Down Lane

Titles	Spec
Laptop	Intel I7 2.5Ghz, RAM 16Gb, SSD 200Gb
V2X Radio	WAVE/DSRC, C-V2X
V2X Receiving Performance	PER < 5% for All V2X Channel/Datarate/Speeds(30/60/80kmph)
V2X Test Message Filter	Channel, Datarate, and PSID
V2X Antenna Specification	3dBm(±0.5), Cable:-5.2dBm(±0.26 Loss)/2.5m/2.5
Modems In Unit	4
Modem Group for Test	4x1 or 2x2 or 1x4 (Modem x Channel)
Unit I/O Port	V2X Main & Sub Antenna pairs : 4 , GNSS Antenna In : 1, 1PPS Out : 1, Ethernet : 1
Power Consumption	110V / 220VAC 1.8A Max
Unit Size (Inc. Exterior Housing)	403.2 x 155.6 x 562.0 (W x H x D, mm)
Unit Weight (Inc. Exterior Housing)	8.62kg